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ABSTRACT

Sample test questions related to a variety of safety items comprise this publication. It is a supplement to a series on shop safety information produced by the New York State Education Department. The multiple choice test items are intended as a resource for use in developing teacher-made tests, based on course content. (CTM)

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SAFETY SUPPLEMENT

NUMBER 4

Sample

Safety Test Items

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TM 800303

THE UNIVERSITY OF THE STATE OF NEW YORK / THE STATE EDUCATION DEPARTMENT
BUREAU OF INDUSTRIAL ARTS EDUCATION / ALBANY

1980

INTRODUCTION

This publication is a supplement to a series on shop safety information being produced by the State Education Department. The other current publications in this series are listed on the back of this one.

This supplement is a collection of sample test questions relating to a variety of safety items. It is intended as a resource to be used in developing local tests. Teachers are urged to develop similar questions to meet specific needs and situations. In compiling an examination, care should be taken to relate the items to actual content as outlined in the course of study. A review of the lessons identified in the teacher's daily plan book should be the first priority.

The material in this supplement represents a joint effort of the industrial arts staff at the State University College at Buffalo and the Bureau of Industrial Arts Education, State Education Department, Albany. Materials were developed by John R. Karsnitz, Rex Miller, Eugene C. Stafford, and the late Charles E. Ball, SUCNY Buffalo and Clifford J. Lloyd, SED, Albany. Editorial assistance was provided by Kenneth D. Ormiston of SED Test Development.

Arthur J. Dudley, Chief
Bureau of Industrial Arts
Education

BAND SAW

1. All adjustments on a band saw should be made only when the:

   a) machine is at a dead stop
   b) machine is coasting
   c) power is off
   d) saw blade is removed

2. How far above the stock should the upper saw guide of a band saw be set?

   a) 1/4 inch or less
   b) between 1/4 and 1/2 inch
   c) between 1/2 and 3/4 inch
   d) 3/4 inch or more

3. The sawing procedure on a band saw should be planned so that:

   a) small curves can be cut easily with a wide blade
   b) little scrap will remain on the table
   c) a minimum of backing out of cuts will be required
   d) a forceful twist must be used to cut a curve

4. When a band saw blade breaks or comes off, the operator should:

   a) continue cutting until the blade stops
   b) call the teacher to turn the power off
   c) check the table insert to see what happened
   d) turn the power off and notify the teacher

JIG SAW (Scroll Saw)

1. A scroll saw blade is installed to cut:

   a) on the top stroke only
   b) on the down stroke only
   c) at a slow rate of speed only
   d) at a high rate of speed only

2. Before starting a scroll saw, the hold-down adjustment should be checked to make sure that:

   a) it is tight against the stock
   b) hold-down adjustment is just touching stock with a little pressure
   c) there is a 1/2 inch clearance between it and the stock
   d) there is a gap as wide as the blade between it and the stock

3. The stock to be cut on the scroll saw should always be:

   a) soft
   b) hard
   c) round on the bottom
   d) flat on the bottom

JOINTER

1. When adjusting the depth of cut on a jointer for a wide surface board, the cut should be limited to:

   a) 1/16 inch
   b) 1/8 inch
   c) 1/4 inch
   d) 3/16 inch

2. What is the shortest length of stock that can be safely cut on the jointer?

   a) 4 inches
   b) 8 inches
   c) 10 inches
   d) 12 inches

3. Before picking up stock that has been surfaced on a jointer, the stock should be pushed far enough past the cutter knives so that the:

   a) stock drops clear of the table
   b) push stick will hit the knives
   c) outfeed table raises the material above the level of the knives
   d) guard will return over the center knives

PORTABLE ROUTER

1. Before changing the bits or cutters or making adjustments on a router, the operator should make sure that:

   a) the electric cord is disconnected from the power source
   b) all electric power is turned off in the shop
   c) the blades turn freely by hand
   d) the blades have been covered to prevent injury

2. When cutting with a router, the operator should:

   a) attempt to make as deep a cut as possible
   b) feed the cutter as fast as possible
   c) wear gloves to prevent injury
   d) keep hands clear of the revolving cutters

SANDER (DISC & BELT TYPES)

1. All adjustments on a portable sander should be made when

   a) the power is on
   b) another student is holding the sander
   c) the sander is in gear
   d) the electric cord is disconnected

2. When operating a disc sander, the work should be fed against the:

a) disc rim
b) disc center
c) upward motion side of the disc
d) downward motion side of the disc

WOODTURNING LATHE

1. All adjustments on a lathe should be made when the:

a) machine is turning slowly
b) machine is at a dead stop
c) initial cuts are completed
d) teacher is present

2. The tool rest on a lathe should always be set so it is:

a) just touching the stock
b) the same distances from the stock as the lathe tool
c) 1/4 inch or less from the rough stock
d) below and to the left of the center of the stock

3. When starting a lathe for a beginning operation, the operator should use:

a) the highest speed
b) the lowest speed
c) a speed of 5,000 rpm
d) a speed of 10,000 rpm

4. When using a lathe turning tool, the tool should always be held:

a) with one hand only
b) with both hands
c) firmly against the tool rest
d) flat against the holder

BUFFER

1. When buffing, the work should be held:

a) on the top of the wheel
b) between the top and the center of the wheel
c) between the center and the bottom of the wheel
d) on the bottom of the wheel

2. Permission to buff small pieces of work must be obtained from:

a) an advanced student
b) the teacher
c) the principal
d) the counselor

3. Goggles or a face shield must be worn when using a buffer because it will:

a) magnify the work
b) remove glare
c) help avoid distraction
d) protect the eyes from flying particles

4. When using a buffer, the sharp edges of the work should be:

a) filed before buffing
b) sanded before buffing
c) pointed upward
d) pointed downward

GRINDER

1. The grinder tool rest should always be securely fastened:

a) 1 in. away from the wheel
b) 1/2 in. away from the wheel
c) when wheel is not in motion
d) after the power is turned off and the wheel is coasting

2. A grinder tool rest should always be set so that it:

a) is 1/2 in. away from the wheel
b) is 1/4 in. away from the wheel
c) is no more than 1/8 in. away from the wheel
d) rubs lightly against the wheel

3. When grinding small pieces of stock, the operator should:

a) hold them with bare hands
b) hold them using a glove
c) receive instruction and permission from the teacher
d) use a very fine wheel

SHEAR

1. The shear must be operated by:

a) several students at once
b) a student and helper
c) only one person at a time
d) by the teacher and a helper

2. When using a shear, the operator's fingers should be kept:

a) just above the clamp and blade
b) just below the clamp
c) just to one side of the blade
d) completely away from the clamp and the blade

3. After pushing down on the treadle of a shear for a cut, the treadle should be allowed to:

a) stay down until the next cut
b) return half way to its normal position
c) return to its normal position slowly
d) return to its normal position as rapidly as possible

RADIAL ARM SAW

1. Scraps should be removed from the path of a radial arm saw blade with:

   a) a steel ruler while the saw blade is moving
   b) a piece of wood while the saw blade is moving
   c) a steel ruler after the saw blade has stopped
   d) a piece of wood after the saw blade has stopped

2. At the completion of each cut, a radial arm saw blade must be:

   a) returned to its beginning position behind the guide fence
   b) returned to the point nearest to the operator
   c) raised for realignment
   d) lowered for realignment

TABLE SAW

1. The helper on the table saw serves:

   a) to support the stock so that it is level with the table
   b) to pull stock past the saw blade
   c) to clear sawdust from the saw blade
   d) to control the speed of the saw blade

2. When operating a table saw, a push stick should be used to:

   a) rip short or narrow pieces of stock
   b) adjust the depth of the saw blade
   c) remove scraps
   d) turn on the power

BAR FOLDER

1. When folding metal in the bar folder, the operator should:

   a) keep the fingers away from the folding bar
   b) let the folding bar drop
   c) always fold across a hem
   d) feed the work as rapidly as possible

2. When using a bar folder, the handle should be:

   a) held by the operator at all times
   b) moved down slowly during each fold
   c) thrown back after each fold
   d) rotated during the folding process

BOX AND PAN BRAKE

1. Before operating the box and pan brake, the operator should:

   a) drop the lead
   b) make sure that everyone is clear of the counter balance
   c) remove the bending load
   d) remove the leaf

2. When using a box and pan brake, the operator should keep his fingers:

   a) on the clamping bar
   b) on the bending bar
   c) on the counter balance
   d) clear of the clamping bar

DRILL PRESS

1. Drill press work should always be held:

   a) with a pair of pliers
   b) with the hands
   c) in a vise or firmly clamped to the table
   d) with vise-grips

2. When a drill bit begins to break through the work, the operator should:

   a) maintain the same feed pressure
   b) apply more pressure
   c) ease up on the feed pressure
   d) stop the drill press immediately

3. The best way to remove chips or shavings from the table of a drill press is with:

   a) a wooden stick
   b) a small drill bit
   c) a metal ruler
   d) a brush

4. Before turning on the power, the chuck key should be removed from the chuck of a drill press in order to prevent the:

   a) chuck from being damaged
   b) spindle from becoming unbalanced
   c) drill from breaking
   d) chuck key from being thrown and injuring someone

5. If the work on a drill press seized is by the drill bit, the operator should:

   a) grab the work with his hands
   b) stop the machine immediately
   c) increase the feed pressure
   d) decrease the feed pressure

PORTABLE ELECTRIC DRILL

1. When using a portable electric tool, a location that is dry and not grounded should be selected in order to avoid:

   a) blowing a fuse
   b) the formation of rust on the tool
   c) a serious electric shock
   d) damaging the cord

2. Before plugging in a portable electric drill, the operator should:

   a) remove the drill bit
   b) check the outlet for power
   c) make sure the switch is off
   d) disconnect the ground wire

3. When turning off a portable electric drill, the operator should:

   a) pull the plug to stop the drill
   b) hold the drill until it stops
   c) lay down the drill before it stops
   d) hold the chuck to stop the drill

WELDER (OXYGEN - ACETYLENE)

1. Welding equipment should always be:

   a) lubricated with oil
   b) kept free of oil and grease
   c) cleaned with alcohol
   d) cleaned with kerosene

2. Welding goggles are worn because they:

   a) magnify the work
   b) protect the eyes from dust
   c) help to avoid distractions
   d) protect the eyes against heat, rays, and sparks

3. What should be used to light a welding torch?

   a) a match
   b) a rag soaked in kerosene
   c) a friction torch lighter
   d) a cigarette lighter

FORGE

1. When using the forge or hammering on metal, the worker should wear a face shield or a safety glass because it:

   a) magnifies the work
   b) protects the eyes from bright light
   c) protects the eyes from flying particles
   d) removes glare from the work

2. When lighting a gas forge, what should be done first?

   a) turn on the gas
   b) run air through the forge
   c) place a lighted piece of paper in the forge
   d) close all vents

3. Tongs should be cooled before placing them on the tool rack in order to prevent:

   a) burning someone
   b) cracking the tool rack
   c) warping the tongs
   d) disorganizing the tool rack

GAS FURNACE

1. Before lighting a gas furnace, a person should make sure that:

   a) all the windows are closed
   b) there is a spare soldering copper
   c) all the lights are turned off
   d) the area is properly ventilated

2. When passing a soldering copper to another person, the first person should:

   a) hand it to him by the heated end
   b) grasp it by the middle so that he can take hold of the handle
   c) place it on a rest or in the furnace before he picks it up
   d) wrap a piece of rag or paper around it so that no one will be burned

3. A soldering copper should always be picked up:

   a) by its handle
   b) by its shank
   c) when it is hot
   d) when it is cold

4. To determine whether a soldering copper is hot enough to use, a person should:

   a) dip it in water
   b) look at the flame
   c) test it with the fingers
   d) test it with a piece of solder

WELDER (ELECTRIC)

1. What is the most important reason why a welding helmet with a cracked observation window should never be worn?

   a) dust will pass through the crack
   b) the crack will obstruct the welder's view
   c) the helmet will rattle when the welder moves
   d) the crack will transmit infrared and ultraviolet rays

2. If a cable or the electrode holder overheats, you should:

   a) turn the voltage down
   b) notify your teacher
   c) stop welding and wait until it cools
   d) change the electrode holder

ENGINES

1. When running an engine in a building, why should the exhaust be vented to the outside of the building and adequate ventilation provided?

   a) to provide a proper air mixture for the carburetor
   b) to reduce noise pollution
   c) to reduce back pressure on the manifold
   d) to prevent the release of exhaust gas in the shop

2. When working on an engine that is running, a mechanic should:

   a) put the car in gear
   b) make sure that the gas tank is full
   c) keep the hands away from the revolving fan
   d) plug the exhaust pipe

LIFTS, HOISTS, AND CRANES

1. Before working under a car that has been raised on a hoist, the mechanic should make sure that the:

   a) hand brake is applied
   b) car is adequately supported
   c) transmission is in park
   d) car is not leaking oil

2. A hoist should be placed directly over the object to be lifted so that:

   a) the object may be raised faster
   b) there will be the least amount of wear on the chain
   c) the smallest amount of room will be needed
   d) the hoist will not tip over

3. After raising a car with a crane, support must be placed under the car so that:

   a) the car will not roll away
   b) there will be no strain on the springs and shock absorbers
   c) the mechanic can get into the car
   d) the car will remain in the raised position

CIRCUITS

1. Which device is used to protect electrical circuits from overload damage?

   a) circuit breaker
   b) transformer
   c) solenoid
   d) junction box

2. Which device should be used to locate live wires?

   a) an off-on switch
   b) fuse
   c) screwdriver
   D) test lamp

ELECTRICAL EQUIPMENT

1. The frame or housing of electrically operated equipment should always be:

   a) bolted to a wall
   b) connected to a fuse
   c) grounded
   d) painted red

2. Before servicing or repairing electrical equipment, the repairman should be sure that the:

   a) armature has been checked
   b) equipment is not connected to a power source
   c) fuse has been changed
   d) off-on switch is working properly

STORAGE BATTERY CHARGER

1. Which device should be used to test a storage battery?

   a) a pair of pliers
   b) a screwdriver
   c) a transformer
   d) an appropriate meter

2. A good neutralizer for cleaning the top of a storage battery is water and:

   a) borax
   b) lye
   c) soap
   d) baking soda

3. Why should storage batteries be charged in a well-ventilated room?

   a) batteries can overheat during charging
   b) an explosive gas is produced during charging
   c) a corrosive liquid is produced during charging
   d) batteries can develop a short circuit during charging

ELECTRICITY

1. The average person can feel voltage as low as:

   a) 1-1/2 volts
   b) 6 volts
   c) 9 volts
   d) 30 volts

2. Voltages as high as 22,000 volts can be found in:

a) an incandescent light
b) a radio
c) a television set
d) a car

3. A fuse is a device that serves as:

a) a circuit breaker
b) a capacitor
c) an inductor
d) a relay

4. A fuse is used to:

a) protect a circuit against excessive current
b) increase the voltage in a circuit
c) turn a circuit off and on
d) start an electric motor

5. Which voltages are used in a school shop?

a) 440-880 volts
b) 120-240 volts
c) 50-60 volts
d) 12 to 24 volts

6. Which should be used if a person has to move a live electrical wire?

a) the person's hand
b) a dry wooden stick
c) a wet piece of rope
d) a piece of metal

7. If a person touches one terminal of a 12 volt battery, the person will:

a) feel a mild shock
b) not feel an electric shock
c) be seriously burned
d) be killed

CERAMIC KILN

1. When removing ceramic ware from a kiln, to avoid cuts from stilt marks:

a) wear gloves
b) handle the ceramic ware carefully
c) grind off all stilt marks immediately
d) remove the ceramic ware while it is hot

2. Lead glazes should not be used on:

a) bisque ware
b) containers used for food
c) containers made for cold liquids
d) containers made for hot liquids

3. Why should the hands be washed after working with clay?

a) clay contains harmful bacteria
b) clay permanently stains the hands
c) clay dries out the skin
d) clay cannot be removed from hands after 1 hour

LEAD GLAZES

1. Why should lead glazes not be used?

a) lead is toxic to humans
b) lead becomes volatile when fired
c) lead fumes contaminate the kiln interior
d) lead can stain the hands

2. A ceramic spray booth used for glaze application should always be:

a) large enough to hold two people
b) exhausted outdoors
c) heated to 100° F
d) brightly lighted

TILE SAW

1. What should be done first when changing the blade on a tile saw?

a) unplug the machine
b) turn the machine to a low speed
c) clean the old blade
d) oil the new blade

2. Which will be produced if the correct amount of coolant is being used for a tile saw?

a) sparks
b) a mist
c) dust
d) a stream of water

3. The use of eye safety devices is needed when working on a:

a) tile saw
b) slab saw
c) belt sander
d) plasterwheel
e) all of these

SLAB SAW

1. Which liquid is used as a coolant by a slab saw?

a) water
b) alcohol
c) oil
d) gasoline

GLASS GRINDER

1. When grinding glass, what substance is used as a coolant and a dust control?

   a) alcohol
   b) oil
   c) water
   d) grease

RELIEF PLATEMAKING

1. When using acid to etch a plate, a pupil should wear:

   a) safety glasses only
   b) rubber gloves only
   c) a rubber apron only
   d) safety glasses, rubber gloves, and a rubber apron

2. When cutting a linoleum block, a pupil should always:

   a) hold the block in one hand while cutting with the other
   b) hold the block behind the cutting tool and push the cutting tool away from him
   c) make slow heavy cuts
   d) make fast shallow cuts

3. When using acid to etch a plate, a pupil should always:

   a) work in a well ventilated area
   b) wear a gas mask
   c) wash his hands before etching
   d) dilute the acid with water before using

PRINTING PRESSES

1. When setting-up a power platen press, the operator should:

   a) move the throw-off lever to the front
   b) run the machine at low speed
   c) turn the machine off
   d) run the machine at top speed

2. When a sheet of paper is misfed into a power platen press; the operator should:

   a) quickly reach in and readjust the paper
   b) move the throw-off lever forward and readjust the paper on the next cycle
   c) stop the press
   d) slow the machine and have another person readjust the paper

3. When cleaning a power platen press, the operator should:

a) run the machine at top speed
b) move the throw-off lever back
c) stop the machine, turn by hand
d) put the type form in the press

4. When operating an offset press, the operator should always:

a) remove all jewelry
b) secure loose clothing
c) tie back long hair
d) all of the above

5. When making adjustments on an offset press, the operator should:

a) turn off the machine
b) run the machine with the paper feed off
c) run the machine with a slow paper feed
d) run the machine with a fast paper feed

6. When testing the amount of fountain on the Molleton roller, the operator should:

a) use the back of your fingers with the press running
b) use the back of your fingers with the press stopped
c) use litmus paper with the press running
d) use litmus paper with the press stopped

7. Which of the following offset press components may be operated safely while the press is running?

a) paper feed lever
b) vertical copy adjustment
c) ejector rollers
d) blanket cylinder

8. A printing press should be oiled only when the press:

a) is at a dead stop with the power off
b) is running at top speed
c) breaks down
d) becomes too noisy

9. A printing press should be inked only when it is:

a) running slowly
b) running at full speed
c) at a dead stop
d) coasting

10. The speed of a printing press should be adjusted according to the:

a) size of the paper used
b) amount of work to be done
c) type of ink used
d) operator's ability to feed paper

PAPER CUTTER

1. Why are all paper cutters designed so that two hands are required to activate the cutting blade;

   a) to ensure that the cutting bar will cut evenly
   b) to protect the operator from being injured
   c) to reduce the time required to cut paper
   d) to reduce the power needed to operate the cutter

2. When loading or unloading a hydraulic paper cutter, the operator should always be sure that the:

   a) power is turned on
   b) back fence is set to the correct dimension
   c) cutting blade is higher than the paper clamp
   d) power is turned off

3. When loading or unloading a hand paper cutter, the operator should always be sure that the:

   a) back fence is set to the correct dimension
   b) blade and hand lever are at the maximum height and the safety catch is engaged
   c) hand wheel is locked
   d) measuring tape is properly set

4. After the operator has finished cutting paper with a paper cutter, the person should:

   a) raise the paper clamp
   b) lower the blade to its minimum height
   c) oil the cutting blade
   d) turn off the power on the automatic cutters

5. Before adjusting a paper cutter, the operator should be sure that the:

   a) handle controlling the blade is locked in the proper position
   b) handle controlling the blade is in a downward position
   c) clamp is down
   d) knife is down

6. When operating a paper cutter, the operator should reach for the cut stock when the:

   a) blade is on the upward stroke
   b) blade is on the downward stroke
   c) handle controlling the blade is returned to its proper position
   d) clamp is down

PAPER DRILL

1. When operating the paper drill:

   a) remove all jewelry
   b) operate the drill bit at a moderate and steady speed
   c) make adjustments with the machine off
   d) all of the above

DARKROOM

1. When preparing an acetic stop bath, a pupil should:

   a) add the acid to water
   b) add water to the acid
   c) add the acid to alcohol
   d) add alcohol to the acid

2. When operating electrically powered units such as a camera or safe light, a pupil should be sure that:

   a) the hands are always dry
   b) developing chemicals are in sealed containers
   c) the working area is vented to the outside
   d) safety glasses and rubber gloves are worn

PLATEMAKING

1. Why should a pupil be careful when using offset-lithography metal plates?

   a) they bend easily
   b) they may cause a severe cut
   c) they scratch easily
   d) they fold easily

SCREEN PRINTING

1. When using a lacquer solvent in a screen printing, a pupil should always:

   a) work in the sublight
   b) wear asbestos gloves
   c) burn all rags soaked with solvent
   d) work in a well ventilated area

RUBBER PLATEMAKING

1. When making a rubber plate, a pupil should be sure to:

   a) wear safety glasses
   b) wear gloves when handling hot material
   c) ink the type
   d) use thermographic powder

RUBBER STAMPS

1. Gloves or tongs should be used when handling:

   a) a composing stick
   b) a rubber stamp matrix
   c) a slug cutter
   d) furniture

FLAMMABLE MATERIALS

1. Why should the solvents used to clean up ink be stored in special metal containers?

   a) they produce poisonous fumes
   b) they are flammable
   c) they can stain clothing
   d) they can damage a person's skin

2. Rags and newspapers that contain flammable solvents must be:

   a) laid out to dry
   b) placed in a safety can with the lid closed
   c) discarded in the wastepaper basket
   d) burned immediately after use

FIRE SAFETY

1. The pressurized-water type of fire extinguisher is designed to extinguish:

   a) paper, wood, or cloth fires
   b) electrical fires
   c) gasoline fires
   d) grease or fat fires

2. The best type of extinguisher to use on burning liquids is an extinguisher that contains:

   a) a soda-acid mixture
   b) pressurized water
   c) carbon dioxide
   d) a normal saline solution

3. An electrical fire should be put out with an extinguisher containing:

   a) carbon dioxide
   b) pressurized water
   c) a soda-acid solution
   d) a saline solution

PLASTICS

1. In a plastics lab, a person should wear safety glasses when operating:

   a) a machine with high speed moving parts
   b) a compression molding machine
   c) injection molders
   d) blow molders
   e) All of the above

2. When working with high pressure laminates, it is important to preheat the material under very low pressure to:

   a) cool the platens down
   b) prevent too rapid a chemical reaction
   c) drive off any moisture that otherwise might be trapped
   d) prevent excess pressure from building up

3. When making a high pressure laminate, a pupil should:

   a) make sure that the temperature is not too high
   b) use pressures that are less than 1000 PSI
   c) apply the pressure as rapidly as possible
   d) apply a little pressure, release for a second, and then reapply the pressure

4. When removing a mold from a rotational molding machine, the machine operator should:

   a) let the mold cool until it can be handled with bare hands;
   b) spray the mold with water until it is below 212 degrees F. and then remove
   c) remove the mold immediately from machine while it is still hot
   d) quench the mold with water and remove it from the machine

5. When roto molding, what should be used to remove the mold from the machine?

   a) bare hands
   b) cotton gloves
   c) rubber gloves
   d) pliers

6. When removing a compression mold from a press, the press operator should use:

   a) a damp rag
   b) cotton gloves
   c) asbestos gloves
   d) rubber gloves

7. When compression molding, a person should always assume that:

   a) the molding machine could give a person an electric shock
   b) the molding machine could produce poisonous fumes
   c) all parts of the molding machine could be hot
   d) all parts of the molding machine could produce serious cuts

8. When removing the mold from a hydraulic press after compression molding a part, why should a pupil always be careful?

   a) the mold may not be balanced
   b) the platens could come loose
   c) hot molding compound could spray in the pupil's face
   d) the mold is too hot to touch with the bare hands

9. What two chemicals commonly used with polyester resin should not be mixed directly with each other?

   a) cobalt naptonate and MEKP
   b) MEKP and acetone
   c) cobalt napthonate and styrene
   d) styrene and acetone

10. When too much activator is used in polyester resin mixture, the cure will:

    a) set up slower than usual
    b) set up faster than usual
    c) become a potential fire hazard
    d) produce poisonous fumes

11. After using polyester resin in fiberglass layup, a person should dispose of excess resin by:

    a) throwing it into a garbage can
    b) flushing it down the toilet
    c) pouring water on it and letting it sit for awhile
    d) diluting it with MEKP

12. What will happen if too much activator is used in polyester resin mixture?

    a) resin will stay in a soft liquid state
    b) resin may start a fire
    c) resin will set up slower than normal
    d) resin will change color

13. When scooping virgin expandable polystyrene beads out of a barrel, the scoop should not be made of:

    a) wood
    b) metal
    c) plastic
    d) rubber

14. When expanding polystyrene beads in a covered pot of boiling water, why should a person be careful when opening the pot?

    a) poisonous gas may escape from the pot
    b) expanding polystyrene bead may explode
    c) steam escaping from the pot may cause burns
    d) hot mold may break when exposed to the air

15. Which of the following should be kept off the floor to prevent slipping accidents:

a) pre-expanded polystyrene beads
b) virgin expandable polystyrene beads
c) post expandable polystyrene
d) trimmings from molded parts

16. If a fire were to break out in a refrigerated plastics storage room, what is the first action that should be taken?

a) close the door
b) use a type BC fire extinguisher
c) call the fire department
d) remove nonflammable materials

17. What should be done to a burn caused by handling hot plastic in the shop?

a) wrap the burned area in a towel
b) wash the burned area with soap to avoid infection
c) run cold water over the burned area as quickly as possible
d) put the burned area under warm water

GENERAL SAFETY

1. In school, who is the first person to which all injuries should be reported?

a) the nearest student
b) the counselor
c) the teacher
d) the principal

2. Why should safety steel toe shoes be worn when performing certain operations in a shop?

a) they are more comfortable than regular shoes
b) they prevent damage to machines in the shop
c) they protect the foot from injuries by heavy falling objects
d) they are less expensive to buy than regular shoes

3. The purpose of the operator's safety zone around a machine is to protect:

a) equipment
b) teacher
c) student operating the equipment
d) all people working in the shop

4. Any liquid spilled on the floor should be wiped up immediately because it:

a) will look unsightly
b) will stain the floor
c) will cause more work during cleanup
d) may cause someone to slip and be injured

5. Before using any power equipment, a pupil should always obtain permission from:

   a) an advanced student
   b) the counselor
   c) the teacher
   d) the custodian

6. Any breakage or damage to a tool, instrument, or machine should be reported as soon as possible to:

   a) an advanced student
   b) the teacher
   c) the principal
   d) the custodian

7. Shop safety practices should be followed by:

   a) accident prone individuals
   b) inexperienced pupils in the shop
   c) pupils operating shop equipment
   d) all people in a facility

8. Rags containing oil, gasoline, alcohol, shellac, paint, varnish, or lacquer must be:

   a) stored in a covered metal container
   b) stored in a warm, damp place
   c) folded neatly and stored on a shelf
   d) stored in a cool, dry place

9. A fire is considered a class A fire when:

   a) combustible metals are burning
   b) wood, paper, and trash are burning
   c) electrical equipment is on fire
   d) gasoline or grease is burning

10. When unloading a kiln, a pupil should:

   a) wear safety glasses
   b) wear cotton gloves
   c) wait until kiln temperature is below 212 degrees F.
   d) wait until the kiln temperature is below 32 degrees F

11. Hand protection is advised to protect you from:

   a) splinters or blisters
   b) chemical burns or skin irritations
   c) abrasion;
   d) all of the above

12. "Soft" contact lenses are hygroscopic (absorbent) and should not be worn when:

   a) sanding wood
   b) polishing metal
   c) spraying lacquer
   d) welding aluminum.

13. What should be done when the lenses of safety glasses are scratched?

a) the scratches should be buffed out
b) the lenses of the glasses should be replaced
c) the glasses should be washed
d) the glasses should be discarded

14. The main purpose for wearing safety glasses is to:

a) obey the law
b) develop a good work habit
c) protect the teacher from a law suit
d) protect oneself from injury

15. When handling a crucible of molten lead, water should be kept away from the crucible because water will:

a) cool the metal
b) crack the crucible
c) cause an explosion
d) mix with the metal

16. If the instructor is called out of the shop temporarily, the operation of machinery is:

a) not allowed
b) allowed if the pupil is "checked out" on the machine
c) allowed if two or more experienced pupils are watching the operation carefully
d) allowed if the custodian is watching the class

ANSWER SUMMARY
SAFETY EXAM QUESTIONS

Band Saw	1.	c;	2.	a;	3.	c;	4.	d.	
Jig Saw	1.	b;	2.	b;	3.	d.			
Jointer	1.	a;	2.	d;	3.	d.			
Portable Router	1.	a;	2.	d.					
Sander	1.	d;	2.	d.					
Woodturning Lathe	1.	b;	2.	c;	3.	b;	4.	c.	
Buffer	1.	c;	2.	b;	3.	d;	4.	d.	
Grinder	1.	c;	2.	c;	3.	c.			
Shear	1.	c;	2.	d;	3.	c.			
Radial Arm Saw	1.	d;	2.	a.					
Table Saw	1.	a;	2.	a.					
Bar Folder	1.	a;	2.	b.					
Box and Pan Brake	1.	b;	2.	d.					
Drill Press	1.	c;	2.	c;	3.	d;	4.	d;	5. b.
Portable Electric Drill	1.	c;	2.	c;	3.	b.			
Welder (Oxygen-Acetylene)	1.	b;	2.	d;	3.	c.			
Forge	1.	c;	2.	b;	3.	a.			
Gas Furnace	1.	d;	2.	c;	3.	a;	4.	d.	
Welder (Electric)	1.	d.	2.	b;					
Engines	1.	d;	2.	c.					
Lifts, Hoists, and Cranes	1.	b;	2.	d;	3.	d.			
Circuits	1.	a;	2.	d;					
Electrical Equipment	1.	c;	2.	b.					
Storage Battery Charger	1.	d;	2.	d;	3.	b.			

Electricity	1. c; 2. c; 3. a; 4. a; 5. b; 6. b; 7. b.
Ceramic Kiln	1. a; 2. b; 3. a.
Lead Glazes	1. a; 2. b.
Tile Saw	1. a; 2. b; 3. e.
Slab Saw	1. c.
Glass Grinder	1. c.
Relief Platemaking	1. d; 2. b; 3. a.
Printing Press	1. c; 2. c; 3. c; 4. d; 5. a; 6. b; 7. a; 8. a; 9. c; 10. d.
Paper Cutter	1. b; 2. d; 3. b; 4. d; 5. a; 6. c.
Paper Drill	1. d.
Darkroom	1. a; 2. a.
Platemaking	1. b.
Screen Printing	1. d.
Rubber Platemaking	1. b.
Rubber Stamps	1. b.
Flammable Materials	1. b; 2. b.
Fire Safety	1. a; 2. c; 3. a.
Plastics	1. e; 2. c; 3. d; 4. b; 5. b; 6. c; 7. c; 8. d; 9. a; 10. c; 11. c; 12. b; 13. b; 14. c; 15. b; 16. a; 17. c.
General Safety	1. c; 2. c; 3. d; 4. d; 5. c; 6. b; 7. d; 8. a; 9. b; 10. b; 11. d; 12. c; 13. b; 14. d; 15. c; 16. a.

Other publications of The University of the State of New York, The State Education Department, relating to safety education that are available from the Bureau of Industrial Arts include:

Industrial Arts Safety - A Management Plan, 1977
Designed for teachers, administrators and Boards of Education in planning a total safety program.

1. Safety Supplement, 1977
   Eye protection information on applications and recommended protectors.

2. Safety Supplement, 1977
   Suggested equipment for hand, head, foot and respiratory protection.

3. Safety Supplement, 1977
   Sample forms and charts on eye safety devices, laws and regulations.

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EYE SAFETY DEVICES - Education Law and Regulations of the Commissioner of Education

Section 141.10 Part 141 of the Reguations of the Commissioner of Education amended by the Board of Regents, February 1971.

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When developing a comprehensive testing program, the following test development books can be helpful:

Industrial Arts Test Development, 1973
Resource items for Drawing, Electricity/Electronics, Power Mechanics, Woods.

Industrial Arts Test Development, Book II, 1975
Resource items for Ceramics, Graphic Arts, Metals, Plastics.

Industrial Arts Test Development, Book III, 1979
Resource items for:
Graphics Technology (Publications and Engineering Drawing)
Production Technology (Construction and Manufacturing)
Power Technology (Transportation and Aerospace)